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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/435,315      | 11/04/1999  | PAUL D. MARKO        | XM-0014             | 5073             |

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EXAMINER

LEE, JOHN J

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2684

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                               |                              |  |
|------------------------------|-------------------------------|------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>09/435,315 | Applicant(s)<br>MARKO ET AL. |  |
|                              | Examiner<br>JOHN J. LEE       | Art Unit<br>2684             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 17,21-29 and 31-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17,21-29 and 31-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments/Amendment*

1. Applicant's arguments/amendments received on September 16, 2005 have been carefully considered but they are not persuasive because the teaching of all the cited references read on all the rejected and amended claims as set forth in the pervious rejection. Therefore, the finality of this Office Action is deemed proper.

Contrary to the assertions at pages 6 - 8 of the Arguments, claims 17, 28, and 29 are not patentable.

During examination, the USPTO must give claims their broadest reasonable interpretation.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Hadden et al. (6,424,817) reference teaches satellite distribution communication system with receiving antenna for receiving satellite digital signal, and the terrestrial repeater receives satellite digital signal from the antenna and down converting (decoding) recoding the satellite signal into intermediate frequency (IF) satellite radio terrestrial broadcast format and distributing the IF signal to subscribers, and Marko et al. (6,154,452) also same as teaches satellite

distribution communication system with receiving antenna connected to terrestrial repeater to decoding signal and recoding the satellite into XM radio intermediate frequency broadcast format for distribution the IF signal. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Hadden system as taught by Marko, provide the motivation to enhance performing continuous transmission data stream between satellite and terrestrial receiver in satellite distribution system.

Applicant's attention is directed to the rejection below for the reasons as to why this limitation is not patentable.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 17, 21-29, and 31-36** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hadden et al. (US Patent number 6,424,817) in view of Marko et al. (US Patent number 6,154,452).

Regarding **claim 17**, Hadden discloses that a satellite digital audio radio multipoint distribution system (Fig. 2 and column 2, lines 41 – column 3, lines 10). Hadden teaches that a satellite antenna (antenna (28) in Fig. 2) for receiving a satellite digital audio radio signal (22 in Fig. 2) (Fig. 2 and column 3, lines 37 – column 4, lines

31, where teaches the satellite antenna receives communication channels (the audio or video signal) from the satellite). Hadden teaches that a terrestrial repeater (30 in Fig. 2) connected to said antenna (antenna (22) in Fig. 2) for decoding said satellite signal and recording said signal into an intermediate frequency (IF) satellite radio terrestrial broadcast format signal (Fig. 2, 3 and column 3, lines 49 – column 4, lines 62, where teaches the terrestrial repeater receives the satellite signal and decoding (down converting) and recording the satellite signal into intermediate frequency (IF) satellite radio terrestrial broadcast format signal). Hadden teaches that a system for distributing said recoded IF signal (Fig. 2, 3 and column 4, lines 7 – column 5, lines 21, where teaches distributing the IF frequency signal to the customer (subscribers)). Hadden teaches that plural satellite digital audio radio service receivers (subscribers (26) in Fig. 2) adapted to receive said recorded IF signal from said distributing system (30 in Fig. 2) and provide an audio or visual output signal in response thereto (Fig. 2, 3 and column 4, lines 7 – column 5, lines 21, where teaches plural satellite digital audio radio service receivers receive the IF satellite radio terrestrial broadcast format signal and provides an audio or visual output signal for customer).

Hadden does not specifically disclose the limitation “the recorded signal is an XM radio terrestrial intermediate frequency multi-carrier modulated signal (XM radio format)”. However, Marko discloses the limitation “the recorded signal is an XM radio terrestrial intermediate frequency multi-carrier modulated signal (XM radio format)” (Fig. 1, 3, 16, column 6, lines 4 – 55, and column 8, lines 21 - column 9, lines 15, where teaches the terrestrial repeater receives the satellite signal and decoded and recoded signal

into XM radio intermediate frequency multi-carrier modulated signal format for distributing the XM radio signal to mobile subscribers). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Hadden as taught by Marko. The motivation does so would be to provide enhancing transmission quality and continuous broadcasting satellite digital audio and radio service to customers in satellite broadcast system.

Regarding **claim 21**, Hadden discloses that each of said plural receivers includes a respective user interface to allow for channel selection and audio processing (Fig. 2, 3 and column 4, lines 7 – column 5, lines 21, where teaches providing interface module for selection of a desired channel).

Regarding **claim 22**, Hadden discloses that a channel decoder integrated circuit adapted to receive said recoded signal and provide a digital bitstream output in response thereto (Fig. 2, 3 and column 3, lines 49 – column 4, lines 62, where teaches the terrestrial repeater receives the satellite signal and decoding (down converting) and recording the satellite signal into intermediate frequency (IF) satellite radio terrestrial broadcast format signal).

Regarding **claim 23**, Hadden discloses that a source decoder digital signal processor (160 in Fig. 6) adapted to receive said digital bitstream and provide said output signal in response thereto (Fig. 2, 3 and column 3, lines 49 – column 4, lines 62).

Regarding **claim 24**, Hadden discloses that the distribution system is a cable distribution system (Fig. 2, 3 and column 3, lines 49 – column 4, lines 62, where teaches single cable distribution system).

Regarding **claim 25**, Hadden discloses that the distribution system is a wireless distribution system (Fig. 2, 3 and column 2, lines 41 – column 3, lines 10).

Regarding **claim 26**, Hadden discloses that the distribution system is a fiber-optic distribution system (Fig. 2, 3 and column 2, lines 41 – column 3, lines 10, where teaches it is inherently using the a fiber-optic for distribution).

Regarding **claim 27**, Hadden and Marko disclose all the limitation, as discussed in claim 17.

Regarding **claim 28**, Hadden and Marko disclose all the limitation, as discussed in claim 17.

Regarding **claim 29**, Hadden and Marko disclose all the limitation, as discussed in claim 17.

Regarding **claims 31 and 33**, Hadden and Marko disclose all the limitation, as discussed in claim 17. Furthermore, Hadden further discloses that the satellite antenna (28 in Fig. 2), terrestrial repeater (30 in Fig. 2), system for distributing, and plural receivers are mounted on a single structure (Fig. 2 and column 3, lines 38 – column 4, lines 55).

Regarding **claims 32, 34, and 36**, Hadden and Marko disclose all the limitation, as discussed in claim 17.

Regarding **claim 35**, Hadden and Marko disclose all the limitation, as discussed in claims 17 and 31.

Art Unit: 2684

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

#### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Langlais (US Patent number 6,091,932) discloses Bidirectional Point to Multipoint Network Using Multicarrier Modulation.

Fukuda (US Patent number 6,816,704) discloses Communication Method, Radio Base Station Apparatus and Radio Terminal Apparatus.

Information regarding...Patent Application Information Retrieval (PAIR) system... at 866-217-9197 (toll-free)."

Any response to this action should be mailed to:



Art Unit: 2684

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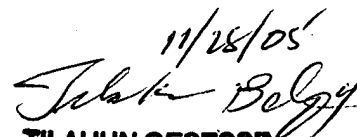
or faxed (571) 273-8300, (for formal communications intended for entry)

Or: (703) 308-6606 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to USPTO Headquarters,  
Alexandria, VA.

Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to **John J. Lee** whose telephone number is **(571) 272-7880**.  
He can normally be reached Monday-Thursday and alternate Fridays from 8:30am-5:00  
pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, **Nay**  
**Aung Maung**, can be reached on **(571) 272-7882**. Any inquiry of a general nature or  
relating to the status of this application should be directed to the Group receptionist  
whose telephone number is (703) 305-4700.

J.L  
November 23, 2005

11/28/05  
  
**TILAHUN GESESSE**  
**PRIMARY EXAMINER**

John J Lee